

**REMARKS/ARGUMENTS**

*1. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashimoto (US 5844645) in view of Kiguchi et al. (US 6872586).*

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**Response:**

With respect to claim 1:

10        Claim 1 recites a color filter structure comprising a substrate having a rim region and a central region defined thereon, a first light-blocking layer positioned within the rim region on the substrate, and **a plurality of conductive color filters positioned in the central region on the substrate to form a common electrode.**

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      Kashimoto disclosed a color liquid-crystal display device including an active-matrix or TFT-array substrate 10, and a color-filter substrate 20 disposed in parallel to and apart from the substrate 10 (col. 5, lines 13-16). The color-filter substrate 20 is formed by a transparent glass plate 21, a  
20    black matrix 22 formed on the back surface of the plate 21, and R-, G-, B-colored layers 23, 24, and 25 formed on the back surface of the glass plate 21. The colored layers 23, 24, and 25 are respectively opposite to pixel electrodes 13 on the active-matrix substrate 10. **A common electrode (not shown in Fig. 3 and 4) is formed to cover the black matrix 22 and**  
25    **the colored layers 23, 24, and 25.** (col. 5, lines 37-49).

      As the examiner indicated, Kashimoto fails to disclose that the color

filters are conductive so as to form a common electrode.

Kiguchi disclosed a method of **manufacture of active matrix substrate** and liquid crystal display device. The method includes providing  
5 a thin film transistor substrate 201 having TFTs 202 thereon. This insulating film 205 covers a portion of the TFTs 202, and is also formed so as to surround the pixel, and thereby functions as a black matrix (col. 3, lines 60-64). Next, contact holes are opened in the insulating film 205, and then red conductive ink, green conductive ink, By this means, **conductive**  
10 **colored layers 206 through 208 are formed, and an active matrix substrate 210 is completed.** (col. 6, lines 16-25) The conductive colored layers 206 through 208 thus formed by imparting conductivity to the ink can be used both as a color filter provided on the thin film transistor substrate, and also as pixel electrodes to drive the liquid crystals. **As a**  
15 **result, the need to form a color filter on the opposing substrate is eliminated.** (col. 6, lines 30-34, 46-47)

It is noteworthy that **the colored layers 206 through 208 are formed on the active matrix substrate 210 to obtain a color filter on TFT (COT)**  
20 **substrate, while the colored layers 23, 24, 25 of Kashimoto are formed on the color filter (CF), which is equal to the opposing substrate 217 of Kiguchi. Apparently the endeavored object of Kiguchi is different from Kashimoto. Meanwhile, Kiguchi never taught or suggested that the method of manufacture of active matrix substrate can be applied to CF**  
25 **substrate.** Therefore the applicant asserts that the motivation of combination of Kashimoto and Kiguchi is not fair.

In addition, Kiguchi also disclosed the opposing substrate 217 which

sandwiched liquid crystals 219 with the thin film transistor substrate 210 to form the liquid crystal display device 210. **The opposing substrate 217 has an opposing electrode 218** comprising a transparent conductive film and an alignment film 221. Those skilled in the art would easily realize that the opposing electrode 218 of Kiguchi functions as the common electrode of Kashimoto. **It is obvious that both Kashimoto and Kiguchi need common electrode while the common electrode in the present application is replaced with the conductive color filters.**

In summary, Kashimoto fails to disclose that the color filters are conductive so as to form a common electrode. **Kiguchi's conductive colored layers are formed on the TFT substrate, not on the CF substrate, and Kiguchi never suggested to apply this method on the CF substrate.** Therefore the motivation of combination of Kashimoto and Kiguchi is lacked. Additionally, both of Kashimoto and Kiguchi require to form common electrode. Thus the applicant asserts that the present application is distinctly different from Kashimoto and Kiguchi. Reconsideration of claim 1 is politely requested.

As to claim 2, 3, and 6:

Claims 2, 3, and 6 are dependent on claim 1 and should be allowed if claim 1 is allowed.

*2. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashimoto (US 5844645) and Kiguchi et al. (US 6872586) in view of Ohtsu et al. (US 6436591).*

**Response:**

Ohtsu discloses a conductive color filter, method for manufacturing the same, and LCD element. The method comprises selective formation of a black matrix on a light-transmitting substrate, which comprises a light-transmitting conductive film stack upon a photoconductive thin film and allowing at least the photoconductive thin film of the substrate to be contact with an electrolyte containing a conductive electrodeposition material containing a conductive coloring material. The photoconductive thin film is then irradiated with light, and the electrodeposition material is then selectively deposited in a light-irradiated area of the photoconductive thin film, thereby forming a conductive colored electrodeposition film (abstract). **The electrodeposition material according to the invention has a high-molecular compound as the main component (col. 26, lines 14-15) while the colorant particles having average particle diameter in a range from 0.01  $\mu$  m to 1.2  $\mu$  m (col. 26, lines 44-46).**

With respect to claim 4:

Claim 4 is dependent on claim 1 and should be allowed if claim 1 is allowed. Reconsideration of claim 4 is politely requested.

As to claim 5:

The applicant found that the Ohtsu's particle are colorant particles in micrometer without conductivity while the particles in the present application are conductive particles in nanometer. Therefore the applicant asserts that the present application is different from Ohtsu. In addition,

Claim 5 is dependent on claim 1 and should be allowed if claim 1 is allowed. Thus reconsideration of claim 5 is politely requested.

3. *Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashimoto (US 5844645) and Kiguchi (US 6872586) in view of Cheng (US 5721599).*

**Response:**

10 With respect to claims 7 and 10:

Claims 7 and 10 are dependent on claim 1 and should be allowed if claim 1 is allowed.

15 4. *Claims 1, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishimoto et al. (US 6600532) in view of Kiguchi et al. (US 6872586).*

**Response:**

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With respect to claim 1:

Kishimoto discloses a color filter and liquid crystal display subject to impurity extraction treatment for voltage holding ratio of 80% or more.

25 **The color filter 11 comprises a substrate 12, a resin colored layer 13 consisting of a black matrix 14 and a plurality of colored film 15 formed in a predetermined patten on the substrate 12, and a common transparent electrode layer. Said resin colored layer bringing about a**

voltage holding ratio of 80% or more and a residual DC of 0.5 V or less in a liquid crystal display subject to impurity extraction treatment (col. 2, lines 27-36).

5       As the examiner indicated, Kishimoto fails to disclose that the color filters are conductive so as to form a common electrode.

10       As mentioned above, Kiguchi disclosed a method of **manufacture of active matrix substrate** and liquid crystal display device. The conductive colored layers 206 through 208 of Kiguchi are formed by imparting conductivity to the ink and are used both as a color filter provided on the thin film transistor substrate, and also as pixel electrodes to drive the liquid crystals. **As a result, the need to form a color filter on the opposing substrate is eliminated.** (col. 6, lines 30-34, 46-47)

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20       It is noteworthy that **the colored layers 206 through 208 are formed on the active matrix substrate 210 to obtain a color filter on TFT (COT) substrate while the colored film 15 of Kishimoto are formed on the color filter (CF) substrate, which is equal to the opposing substrate of Kiguchi.** Apparently the endeavored object of Kiguchi is different from Kishimoto. Meanwhile, Kiguchi never taught or suggested that the **method of manufacture of active matrix substrate can be applied to CF substrate.** Therefore the applicant asserts that the motivation of combination of Kishimoto and Kiguchi is not fair.

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In addition, Kiguchi also disclosed an opposing substrate 217 which sandwiched liquid crystals 219 with the thin film transistor substrate 210 to form the liquid crystal display device 210. **The opposing substrate 217**

has an opposing electrode 218 comprising a transparent conductive film and an alignment film 221. Those skilled in the art would easily realize that the opposing electrode 218 of Kiguchi functions as the common electrode of Kishimoto. **It is obvious that both Kishimoto and Kiguchi**  
5 **need common electrode while the common electrode is replaced in the present application.**

In summary, Kishimoto fails to disclose that the color filters are conductive so as to form a common electrode. **Kiguchi's conductive**  
10 **colored layers are formed the TFT substrate, not in the CF substrate, and Kiguchi never suggested to apply this method on the CF substrate.** Therefore the motivation of combination of Kishimoto and Kiguchi is lacked. Additionally, both of Kishimoto and Kiguchi require to form common electrode. The applicant asserts that the present application is  
15 distinctly different from Kishimoto and Kiguchi. Reconsideration of claim 1 is politely requested.

As to claim 6 and 8:

20 Claims 6 and 8 are dependent on claim 1 and should be allowed if claim 1 is allowed.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

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Appl. No. 10/711,016  
Amdt. dated December 26, 2006  
Reply to Office action of September 27, 2006

Sincerely yours,

Winston Hsu

Date: 12/26/2006

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- 10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan.)